UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,468	09/28/2000	John Bryan Ibbotson	GB919990081US1/1751P	8913

45728 7590 07/08/2009

IBM ST-SVL
SAWYER LAW GROUP LLP
2465 E. Bayshore Road, Suite No. 406
PALO ALTO, CA 94303

EXAMINER	
PILLAI, NAMITHA	
ART UNIT	PAPER NUMBER
2173	

NOTIFICATION DATE	DELIVERY MODE
07/08/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com

Office Action Summary	Application No.	Applicant(s)	
	09/675,468	IBBOTSON ET AL.	
	Examiner	Art Unit	
	NAMITHA PILLAI	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21 and 23-40* is/are rejected.

7)☒ Claim(s) *22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date. _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges Applicant's submission on 7/30/08 including the appeal brief. In view of the arguments in the appeal brief, the prosecution has been re-opened. Claims 21 and 23-40 are rejected. Claims 22 are objected to.

Specification

2. The specification is objected to because it does not contain the claimed limitation, "computer readable medium" in the body of the disclosure. It is not clear what the computer readable medium of claim 35 represents in view of there being a lack of description of this term in the specification. Applicant is requested to make appropriate corrections.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 21-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims disclose a tool but does not clearly disclose that this tool is implemented in a computer system.

4. Claims 38-40 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims disclose a system with means for carrying out the functionality that does not include a physical hardware device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 21, 23-26, 28, 29, 31, 32, 34 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6, 243, 858 B1 (Mizoguchi et al.), herein referred to as Mizoguchi, U. S. Patent No. 6, 748, 374 B1 (Madan et al.), herein referred to as Madan and U. S. Patent No. 6, 829, 770 B1 (Hinson et al.), herein referred to as Hinson.

Referring to claims 21, 32, 35 and 38, Mizoguchi discloses a tool for graphically defining an expression through a graphical user interface component operable to create a graphical definition of the expression based on one or more data structures (column 1, lines 47-65 and Figure 6), where Mizoguchi indicates that a graphic expression is created based on various data structures used in defining the data of the graphical expression. Mizoguchi discloses that the data structures include a plurality of nodes (Figure 8, the various icons connected together), the nodes being associated with lists (Figure 11), with the lists comprising a plurality of items as shown where the input and output lists have a plurality of record items. As shown in Figure 11, the lists are associated with a particular node, where since the list is associated with a particular node, then each of the plurality of items represented in the lists would also be associated with a node of the tree structure. Mizoguchi discloses an expression generator component coupled to the graphical user interface component with the

expression generator analyzing the graphic definition and generating an expression based on the structure of the data structure and any list items associated with respective nodes of the data structure (Figure 23), wherein the grid representation which is the graphic definition is executed and the result of the execution is outputted, this involving analyzing and generating of an expression from the graphic representation. Mizoguchi does not clearly disclose that the multiple structures referred to represent tree structures that comprise a hierarchical series of nodes representing a tree structure. Madan discloses an expression generator system that uses a tree structure with hierarchical series of nodes to generate expressions especially related to query expressions (Figures 14A, 14B and 15). It would have been obvious for one skilled in the art, at the time of the invention to learn from Madan to use the means of tree structures that contain hierarchical nodes. Mizoguchi has clearly taught in the role of multiple structures as is taught by input and output data structures where, Madan further teaches that these structures can be represented as a hierarchical series of nodes. Both Mizoguchi and Madan also teach the generation of an expression through data structures, wherein examination and generation from this examination of tree structure of an expression would be efficient using a tree structure with hierarchical nodes. Parsing of such a tree structure would be time efficient to access the necessary information in less time. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Madan to disclose the use of tree structures that contain a hierarchical series of nodes. Mizoguchi and Madan do not disclose that the items filtered are messages published by a publisher application prior to delivery of the

messages to subscriber applications. Hinson discloses a system for communicating messages between publisher application and subscriber application, represented as the processes that communicate messages between the two separate applications (column 4, lines 1-40). It would have been obvious to on skilled in the art at the time of the invention to learn from Hinson to discloses that messages are filtered and communicated between a publisher application to be delivered to a subscriber application. Mizoguchi and Madan have disclosed a general query system where expressions are generated for querying various types of data used in real world applications (Madan, column 1, lines 17-29). With Hinson teaching a communication system between a publisher application and subscriber applications, where messages are communicated, this would represent applications that would make use of the expression and filtering mechanism of Mizoguchi and Madan to filter the messages communicated between the publisher and subscriber of Hinson. With Mizoguchi and Madan teaching that various applications can use the querying mechanism, it would have been obvious for such a subscriber/publisher application to also make sure of such a querying process to filter messages.

Referring to claim 23, Mizoguchi, Madan and Hinson disclose that the expression is adapted to modify at least one of the one or more messages by performing one or more computations on data within the at least one message (Hinson, column 4, lines 30-37).

Referring to claims 24, 34, 37 and 40, Mizoguchi and Madan discloses that the graphical definition of the expression is created based on at least one input data tree

structure and at least one output data tree structure, wherein at least one item in the one or more lists associated with the at least one input data tree structure specifies a filtering constraint (Mizoguchi, Figure 11), and wherein at least one item in the one or more lists associated with the at least one output data tree structure specifies a formatting definition (Madan, column 5, lines 38-45), where the data structures of Madan disclose including formatting definition information.

Referring to claim 25, Mizoguchi, Madan and Hinson disclose that at least one other item in the one or more lists associated with the at least one output data tree structure identifies a node of the at least one input data tree structure (Figure 11), where Figure 11 shows how all the items of the output data structure is associated with the node, with the node being of the at least one input data structure.

Referring to claim 26, Mizoguchi and Madan disclose that the expression is a structured query language statement (Madan, column 4, lines 33-35).

Referring to claim 28, Mizoguchi discloses that the items in the lists associated with the tree structures include a free variable representing the associated tree structure node within the graphical definition, wherein the variable is “Record Items 1-8" in Figure 11.

Referring to claim 29, Mizoguchi and Madan discloses that at least one of the plurality of nodes in the one or more tree structures is a branch node representing a complex data structure field (Figure 14B) and at least another of the plurality of nodes in the one or more tree structures is a leaf node representing a simple data structure

field, the simple data structure field comprising one of a string, an integer, a real number, and a date (Figure 9B).

Referring to claim 31, Mizoguchi, Madan and Hinson discloses that at least one of the one or more tree structures is associated with two or more lists and wherein at least one item from a first of the two or more lists and at least one item from a second of the two or more lists are part of a logical statement in the expression (Madan, Figure 1).

Referring to claims 33, 36 and 39, Mizoguchi, Madan and Hinson discloses that the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message or by performing one or more computations on data within the at least one message (Madan, column 4, lines 36-41).

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan and further in view of U. S. Patent No. 6,476,833 B 1 (Moshfeghi), herein referred to as Moshfeghi.

Referring to claim 27, Mizoguchi and Madan do disclose that the nodes comprise a filter (Mizoguchi, Figure 11) but do not disclose that it filters messages that are in XML format. Moshfeghi discloses the filtering of XML documents (column 3, line 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mizoguchi and Madan's invention such that there were a means for filtering XML messages. XML's filtering process according to Moshfeghi is done to parse the content of messages to locate all the linking information for subsequent processing. Mizoguchi and Madan would need a means for processing the messages concerning

the queries submitted by the user. Hence, one skilled in the art, at the time of the invention would be motivated to learn from Moshfeghi to disclose a means for filtering XML documents .

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan, Hinson and U. S. Patent No. 5,555,367 (Premerlani et a1.), herein referred to as Premerlani.

Referring to claim 30, Mizoguchi, Madan and Hinson discloses that more than one tree structure does exist but does not disclose that these input structures would be linked based on the nodes within these structures. Premerlani discloses allowing users to define two tree structures, each having an associated list with at least one list item associated with a first node of a first input tree identifying a second node of a second input tree structure from which an expression joining the two input tree on the nodes are generated (column 1, lines 25-35). Premerlani discloses that the idea of joining two structures is common through querying and is implemented in query languages, as would be the case when an expression joining the two structures is generated. It would have been obvious for one skilled in the art at the time of the invention to learn from Premerlani for means to join two of the data structures that are referred to in Mizoguchi and Madan. Mizoguchi and Madan clearly discloses the linking of input tree structures, wherein the input tree structures of the various modules represented in the graphic presentation and used for creating this graphic presentation must clearly be linked to each other in order for the proper input information and output information to enter and leave each individual modules. This implementation gives the system more flexibility,

wherein users can link more than one structure and with Premerlani go further by using data within these structures providing greater depths for working with the data, wherein the specific data within these trees are used for more clearly showing the linking of the data structures. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premerlani for means for linking the nodes of more than tree structure.

Allowable Subject Matter

8. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: With respect to dependent claim 22, the combination of Mizoguchi, Madan and Hinson disclose the tool for graphically defining an expression. There is a graphical user interface to define a graphical definition of the expression using a tree structure. Prior art combinations do not disclose that the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message. The above feature in combination with the features disclosed in claim 21 has not previously disclosed and is obvious in view of the prior arts disclosed.

Conclusion

10. Responses to this action should be submitted as per the options cited below: The United States Patent and Trademark Office requires most patent related correspondence to be: a) faxed to the Central Fax number (571-273-8300) b) hand

carried or delivered to the Customer Service Window (located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 CFR 1.1 (e.g., P.O. Box 1450, Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic Filing System.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (571) 272-4054. The examiner can normally be reached from 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, Kieu Vu can be reached on (571) 272-4057.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Namitha Pillai
Patent Examiner
Art Unit 2173
July 5, 2009

/Namitha Pillai/

Primary Examiner, Art Unit 2173